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SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT

Examining Group 1634

Patent Application

Docket No. GJE-78

Serial No. 09/937,784

Glenn P. Ladwig  
Glenn P. Ladwig, Patent Attorney

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner : Bradley L. Sisson  
Art Unit : 1634  
Applicant : Daniel Henry Densham  
Serial No. : 09/937,784  
Filed : September 28, 2001  
Confirm. No. : 7070  
For : Polynucleotide Sequencing Using a Helicase

MS AMENDMENT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §§1.97 AND 1.98

Sir:

In accordance with 37 CFR §1.56, the references listed on the attached form PTO/SB/08 are being brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application. A copy of each cited reference is enclosed.

This information is being submitted subsequent to the later of three months after the filing date of the present application or the mailing of the first Office Action on the merits, but before the mailing of a final action or the notice of allowance. Please charge the fee of \$180.00 to Deposit Account No. 19-0065.

03/30/2005 HGUTEMA1 00000039 190065 09937784

02 FC:1806 180.00 DA

It is respectfully requested that the references cited on the attached form PTO/SB/08 be considered in the examination of the subject application and that their consideration be made of record.

Applicant respectfully asserts that the substantive provisions of 37 CFR §§1.97 and 1.98 are met by the foregoing statements.

Respectfully submitted,



Glenn P. Ladwig

Patent Attorney

Registration No. 46,853

Phone No.: 352-375-8100

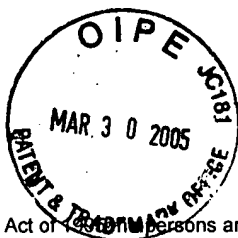
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Gainesville, FL 32614-2950

GPL/sl

Attachments: Form PTO/SB/08; copies of references cited therein.



PTO/SB/08A (08-03)

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|   |   |    | Application Number       | 09/937,784             |        |
|   |   |    | Filing Date              | September 28, 2001     |        |
|   |   |    | First Named Inventor     | Daniel Henry Densham   |        |
|   |   |    | Art Unit                 | 1634                   |        |
|   |   |    | Examiner Name            | Bradley L. Sisson      |        |
| Sheet   | 1 | of | 3                        | Attorney Docket Number | GJE-78 |

| U.S. PATENT DOCUMENTS |                       |   |                                |  |   |
|-----------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials*    | Cite No. <sup>1</sup> | Document Number<br>Number - Kind Code <sup>2</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant<br>of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                       | U1                    | US-   |                                |  |   |
|                       | U2                    | US-   |                                |  |   |
|                       | U3                    | US-   |                                |  |   |
|                       | U4                    | US-   |                                |  |   |
|                       | U5                    | US-   |                                |  |   |
|                       | U6                    | US-   |                                |  |   |
|                       | U7                    | US-   |                                |  |   |
|                       | U8                    | US-   |                                |  |   |
|                       | U9                    | US-   |                                |  |   |

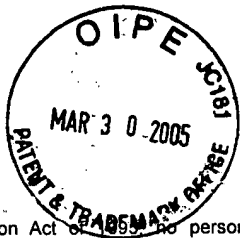
| FOREIGN PATENT DOCUMENTS |                       |  |                                |  |   |                |
|--------------------------|-----------------------|--|--------------------------------|--|---|----------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document<br>Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages or<br>Relevant Figures Appear | T <sup>6</sup> |
|                          | F1                    | EP 0589867 B1  | 04-10-1996                     | Pharmacia<br>Biosensor AB                          | All   |                |
|                          | F2                    | EP 0648328 B1  | 01-21-1998                     | Biacore<br>Aktieboolag                             | All   |                |
|                          | F3                    |  |                                |  |   |                |
|                          | F4                    |  |                                |  |   |                |
|                          | F5                    |  |                                |  |   |                |
|                          | F6                    |  |                                |  |   |                |

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|--------------------|--|-----------------|--|
| Examiner Signature |  | Date Considered |  |
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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|                        |                      |
|------------------------|----------------------|
| Application Number     | 10/937,784           |
| Filing Date            | September 28, 2001   |
| First Named Inventor   | Daniel Henry Densham |
| Group Art Unit         | 1634                 |
| Examiner Name          | Bradley L. Sisson    |
| Attorney Docket Number | GJE-78               |

Sheet 2 of 3

**NON PATENT LITERATURE DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|--------------------|-----------------------|--|----------------|
|                    | R1                    | BIRD, L.E. <i>et al.</i> "Characterisation of <i>Bacillus stearothermophilus</i> PcrA helicase: evidence against an active rolling mechanism" <i>Nucleic Acids Res.</i> , 1998, pp. 2686-2693, Vol. 26.  |                |
|                    | R2                    | JONSSON, U. <i>et al.</i> "Real-Time Biospecific Interaction Analysis Using Surface Plasmon Resonance and a Sensor Chip Technology" <i>Biotechniques</i> , 1991, pp. 620-627, Vol. 11.   |                |
|                    | R3                    | LOFAS, S. <i>et al.</i> "Methods for site controlled coupling to carboxymethyl-dextran surfaces in surface plasmon resonance sensors" <i>Biosens. Bioelectron.</i> , 1995, pp. 813-822, Vol. 10.   |                |
|                    | R4                    | ABDEL-MONEM, M. <i>et al.</i> "Enzymic Unwinding of DNA. 2. Chain Separation by an ATP-Dependent DNA Unwinding Enzyme" <i>Eur. J. Biochem.</i> , 1976, pp. 411-449, Vol. 65.   |                |
|                    | R5                    | ABDEL-MONEM, M. <i>et al.</i> "Enzymic Unwinding of DNA. 1. Purification and Characterization of a DNA-Dependent ATPase from <i>Escherichia coli</i> " <i>Eur. J. Biochem.</i> , 1976, pp. 431-440, Vol. 65.   |                |
|                    | R6                    | EGELMAN, E. <i>et al.</i> "Bacteriophage T7 helicase/primase proteins form rings around single-stranded DNA that suggest a general structure for hexameric helicases" <i>Proc. Natl. Acad. Sci. USA</i> , 1995, pp. 3869-3873, Vol. 92.                          |                |
|                    | R7                    | STASIAK, A. <i>et al.</i> "The <i>Escherichia coli</i> RuvB branch migration protein forms double hexameric rings around DNA" <i>Proc. Natl. Acad. Sci. USA</i> , 1994, pp. 7618-7622, Vol. 91.  |                |
|                    | R8                    | YU, X. <i>et al.</i> "The Hexameric <i>E. coli</i> DnaB Helicase can Exist in Different Quarternary States" <i>J. Mol. Biol.</i> , 1996, pp. 7-14, Vol. 259.   |                |
|                    | R9                    | DEAN, F.B. <i>et al.</i> "The Simian Virus 40 T Antigen Double Hexamer Assembles around the DNA at the Replication Origin" <i>J. Biol. Chem.</i> , 1992, pp. 14129-14137, Vol. 267.  |                |
|                    | R10                   | PETIT, M-A. <i>et al.</i> "PcrA is an essential DNA helicase of <i>Bacillus subtilis</i> fulfilling functions both in repair and rolling-circle replication" <i>Mol. Microbiol.</i> , 1998, pp. 261-273, Vol. 29.  |                |
|                    | R11                   | IORDANESCU, S. <i>et al.</i> "Characterization of the <i>Staphylococcus aureus</i> chromosomal gene <i>pcrA</i> , identified by mutations affecting plasmid pT181 replication" <i>Mol. Microbiol.</i> , 1993, pp. 185-192, Vol. 241.                             |                |
|                    | R12                   | HA, T. <i>et al.</i> "Single-molecule fluorescence spectroscopy of enzyme conformational dynamics and cleavage mechanism" <i>Proc. Natl. Acad. Sci. USA</i> , 1996, pp 893-898, Vol. 96.   |                |

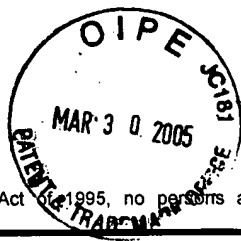
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|--------------------|-----------------------|--|----------------|
|                    | R13                   | DILLINGHAM, M.S. <i>et al.</i> "Demonstration of Unidirectional Single-Stranded DNA Translocation by PcrA Helicase: Measurement of Step Size and Translocation Speed" <i>Biochemistry</i> , 2000, pp. 205-212, Vol. 39.  |                |
|                    | R14                   | BRAMHILL, D. <i>et al.</i> "A Model for Initiation at Origins of DNA Replication" <i>Cell</i> , 1988, pp. 915-918, Vol. 54.  |                |
|                    | R15                   | SCHNOS <i>et al.</i> "Initiation Protein Induced Helix Destabilization at the $\lambda$ Origin: A Prepriming Step in DNA Replication" <i>Cell</i> , 1988, pp. 385-395, Vol. 52.  |                |
|                    | R16                   | Biacore Product Catalog, 2005.   |                |
|                    | R17                   |  |                |
|                    | R18                   |  |                |
|                    | R19                   |  |                |
|                    | R20                   |  |                |
|                    | R21                   |  |                |
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|                    | R23                   |  |                |
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|                    | R25                   |  |                |

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